

LETTER OF TRANSMITTAL

REVISION No. 2 FEB 01/21

TO: All holders of SAAB 2000 Airworthiness Limitation Manual

NOTE: Before introducing this revision, ensure that all previous revisions are incorporated.

FILING INSTRUCTIONS

Update the manual according to the "LIST OF EFFECTIVE PAGES".

R = Revised (to be replaced)

D = Deleted (to be removed)

N = New (to be introduced)

Ensure that the contents of the enclosed ALM agrees with the "LIST OF EFFECTIVE PAGES".

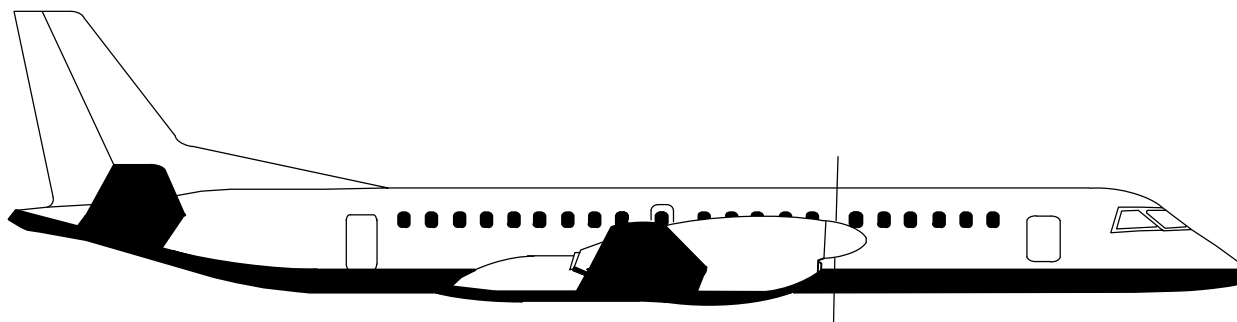
Update the "RECORD OF REVISIONS" page accordingly.

REASON FOR ISSUE

The attached "Highlights" detail the reasons for this issue.

SAAB 2000

AIRWORTHINESS LIMITATION MANUAL



SAAB

Saab
Support and Services
Aircraft Services
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Doc. No: 2000LKS 031010
Ref. No: SAAB 2000 ALM 000
Effectivity: ALL

Initial Issue:	Apr 01/15
Revision 2	Feb 01/21

HIGHLIGHTSREVISION NO. 02

Pages which are new, deleted or revised are outlined below.

<u>SUBJECT</u>	<u>C</u>	<u>PAGE</u>	<u>REASON FOR CHANGE</u>	<u>EFFECTIVITY</u>
Title Page		1	Revised.	
List of Effective Pages		1–2	Revised.	
Table of Contents		1	Revised.	
Record of Revisions		1	Revised.	
Introduction		1–3	Step 2: Clarification regarding effective date for incorporation of revision into operators maintenance program. Step 3: Name changed to European Union Aviation Safety Agency. Step 4 J: Design Service Goal (DSG) for Flight Inspection configuration added. Part 7: Name changed to European Union Aviation Safety Agency.	
Airworthiness Limitations Manual				
Approval sheet		1	Revision No revised to 2. Name changed to European Union Aviation Safety Agency.	
Certification Maintenance Requirements (CMR)				
General		2–3 2	All references to MRB deleted. Name changed to European Union Aviation Safety Agency.	
323201		3	New Task: Functional test of LDG emergency extension system.	
612001		3	Interval changed from 720 FH to 480 FH.	
–		3	Interval changed from 40 FH to 26 FH on Operational check of propeller overspeed.	
Airworthiness Limitations		4	Name changed to European Union Aviation Safety Agency.	

<u>SUBJECT</u>	<u>C</u>	<u>PAGE</u>	<u>REASON FOR CHANGE</u>	<u>EFFECTIVITY</u>
Part 3 – Landing Gear Life-Limited Parts				
General	8		Editorial and tables changed. Safe life revised.	
Main Landing Gear:	9			
General	9		NOTE 1: Clarification regarding fatigue life and requirements for replacement of not Primary Identifiable Parts (PIP).	
Shock Strut AIR 83078	10		Revised fatigue life from 24000 FL to 22452 FL on Piston AIR 135938.	
	10		Revised fatigue life from 24000 FL to 22452 FL on Piston AIR 135990.	
	10		Revised fatigue life from 55037 FL to 53825 FL on Axel AIR 132040.	
	10		Revised fatigue life from 12000 FL to 12121 FL on Shear Bolt NAS 1304–60DH.	
	10		Revised fatigue life from 37078 FL to 48800 FL on Trunnion Pin AIR 135954.	
	10		Revised fatigue life from 37291 FL to 35283 FL on Retract Bracket AIR 132924.	
	10		Revised fatigue life from 12000 FL to 39600 FL on Bolt NAS 6608–17D.	
	10		Revised fatigue life from 18458 FL to 19376 FL on Bolt AIR 132922.	
Shock Strut AIR 83084	11		Revised fatigue life from 24000 FL to 22452 FL on Piston AIR 135938.	
	11		Revised fatigue life from 24000 FL to 22452 FL on Piston AIR 135990.	
	11		Revised fatigue life from 37078 FL to 48800 FL on Trunnion Pin AIR 135954.	
	11		Revised fatigue life from 18458 FL to 19376 FL on Bolt AIR 132922.	
	11		Revised fatigue life from 12000 FL to 39600 FL on Bolt NAS 1308–17D.	
	11		Revised fatigue life from 12000 FL to 39600 FL on Bolt NAS 6608–17D.	
	11		Revised fatigue life from 55037 FL to 53825 FL on Axle AIR 132040.	
	11		Revised fatigue life from 37291 FL to 35283 FL on Retract Bracket AIR 132924.	

<u>SUBJECT</u>	<u>C</u>	<u>PAGE</u>	<u>REASON FOR CHANGE</u>	<u>EFFECTIVITY</u>
Drag Brace AIR 84356 and 84357	12		Revised fatigue life from 12000 FL to 44829 FL on Bearing Housing AIR 133346.	
	12		Lock Lever AIR 134250 with fatigue life 72000 FL added.	
Drag Brace AIR 84368 and 84369	12		Revised fatigue life from 12000 FL to 44829 FL on Bearing Housing AIR 133346.	
	12		Lock Lever AIR 134250 with fatigue life 72000 FL added.	
Drag Brace AIR 84372 and 84373	12		Revised fatigue life from 27651 FL to 36000 FL on Upper Link AIR 136562.	
	12		Revised fatigue life from 27651 FL to 36000 FL on Upper Link AIR 136563.	
	12		Revised fatigue life from 12000 FL to 44829 FL on Bearing Housing AIR 133346.	
	12		Lock Lever AIR 134250 with fatigue life 72000 FL added.	
Drag Brace AIR 84374 and 84375	12		Revised fatigue life from 27651 FL to 36000 FL on Upper Link AIR 136562.	
	12		Revised fatigue life from 27651 FL to 36000 FL on Upper Link AIR 136563.	
	13		Revised fatigue life from 12000 FL to 44829 FL on Bearing Housing AIR 133346.	
	13		Lock Lever AIR 134250 with fatigue life 72000 FL added.	
Retract Actuator AIR 86482	13		Revised fatigue life from 36216 FL to 59146 FL on Eye End AIR 133080.	
	13		Revised fatigue life from 36216 FL to 59146 FL on Eye End AIR 139892.	
Part 4 – Structural Limitation Items				
Structure Life Limited Parts				
Trunnion fitting P/N 7357451-019/-020	14		Revised fatigue life from 45275 FL to 63800 FL.	
Connecting links P/N 7357453-005/-009	14		Revised fatigue life from 53900 FL to 75000 FL.	

<u>SUBJECT</u>	<u>C</u>	<u>PAGE</u>	<u>REASON FOR CHANGE</u>	<u>EFFECTIVITY</u>
Dragbrace fitting P/N 7357452-029/-030 /-047/-048		14	Revised fatigue life from 63275 FL to 75000 FL.	
		14	Reduction factor table for Flight Inspection configuration added.	

LIST OF EFFECTIVE PAGES

N, R or D indicates pages which are New, Revised or Deleted respectively.

<u>SUBJECT</u>	<u>N/R/D</u>	<u>PAGE</u>	<u>DATE</u>
TITLE PAGE	R	1	Feb 01/21
HIGHLIGHTS	R	1	Feb 01/21
	R	2	Feb 01/21
	R	3	Feb 01/21
	R	4	Feb 01/21
LEP	R	1	Feb 01/21
	R	2	Feb 01/21
TABLE OF CONTENTS	R	1	Feb 01/21
RECORD OF REVISIONS	R	1	Feb 01/21
RECORD OF TEMPORARY REVISIONS		1	Feb 01/21
MANUAL USER COMMENTS		1	Feb 01/21
INTRODUCTION	R	1	Feb 01/21
	R	2	Feb 01/21
	R	3	Feb 01/21
AIRWORTHINESS LIMITATION	R	1	Feb 01/21
	R	2	Feb 01/21
	R	3	Feb 01/21
	R	4	Feb 01/21
	R	5	Feb 01/21
	R	6	Feb 01/21
	R	7	Feb 01/21
	R	8	Feb 01/21
	R	9	Feb 01/21
	R	10	Feb 01/21
	R	11	Feb 01/21
	R	12	Feb 01/21

<u>SUBJECT</u>	<u>N/R/D</u>	<u>PAGE</u>	<u>DATE</u>
	R	13	Feb 01/21
	R	14	Feb 01/21
	R	15	Feb 01/21
	R	16	Feb 01/21
	R	17	Feb 01/21
	R	18	Feb 01/21
	R	19	Feb 01/21
	R	20	Feb 01/21

TABLE OF CONTENTS

<u>SUBJECT</u>	<u>CH/SE/SU</u>	<u>PAGE</u>
<u>INTRODUCTION</u>		
1. Purpose		1
2. Applicability		1
3. Explanation		1
4. General rules that apply to all Saab 2000 maintenance program		2
5. Details of Maintenance Programs		2
6. Reference to Service Bulletin		2
7. Revisions to the ALM		3
<u>AIRWORTHINESS LIMITATION</u>		
Approval Sheet		1
Certification Maintenance Requirements (CMR)		2
Airworthiness Limitations		4
– Part 1 – Systems Life–Limited Parts		5
– Part 2 – Engine Life–Limited Parts and Mandtory Inspections		7
– Part 3 – Landing Gear Life–Limited Parts		8
– Part 4 – Structural Limitation Items		14
– Address		17
– Part 5 – Fuel Airworthiness Limitations		18
– Part 6 – Propeller Life Limited Parts		20

RECORD OF REVISIONS

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MANUAL USER COMMENTS on omissions, procedures, etc.

Airworthiness Limitation Manual

From: _____ Date: _____

Tel/Telex/Telefax: _____

Manual: **ALM** Topic: _____

Subject/Task and Page: _____ Page Date: _____

Comments:

Please forward this form, when completed, to the above address. If possible, attach a photo-copy of the relevant manual page with any comments added, as necessary.

Saab Action

Date Received

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☐ To be included in Rev. , dated

☐ In process

☐ Rejected; reason:

.....

INTRODUCTION

1. PURPOSE

The ALM (Airworthiness Limitation Manual, Doc No 2000LKS031010) together with the MRB Report (approved by the MRB (Maintenance Review Board)) outlines the initial minimum maintenance/inspection requirements as approved/accepted by the regulatory authorities for the SAAB 2000 aircraft.

These minimum maintenance/inspection requirements are a basis from which the operators develop their own continuous airworthiness maintenance program for airframe, engines, systems and components of SAAB 2000 aircraft.

2. APPLICABILITY

The contents of this document are applicable to the certified SAAB 2000 airliner including the modifications and standard options which affect scheduled maintenance. Those modifications and options will be referred to under the applicable task (identification) number, with a specific part number, effectivity, vendor etc.

Within 12 months after the issue of each revision, revise the maintenance program by incorporating the limitations, tasks and associated thresholds and intervals described in the ALM, as appropriate, depending on aeroplane configuration.

3. EXPLANATION

This manual specifies both CMR's (Certification Maintenance Requirements) and Airworthiness Limitations arising from the SAAB 2000 certification process.

CMR's (Certification Maintenance Requirements) arising from the SAAB 2000 certification process, where System Safety Analysis found the inspection/test interval to have a direct influence on the safety objectives (FAR/JAR 25.1309).

Airworthiness Limitations are MANDATORY for each operator of the SAAB 2000. The airworthiness limitations are approved by EASA (European Union Aviation Safety Agency) and the Federal Aviation Administration (FAA) and specify the maintenance required under FAR 43.16 and 91.403, unless an alternative program has been FAA approved. The airworthiness limitations may be changed, or escalated, only by the certification authorities EASA and FAA per the manufacturers recommended guidelines.

This manual specifies mandatory replacement time (life limited items) and structural inspection requirements, arising from SAAB 2000 certification activities (FAR/JAR 25.1529 and 25.571), qualified as airworthiness limitations.

NOTE: The tasks and intervals specified below may not be modified by the operator.

Changes to CMR's and Airworthiness Limitations must be directly approved by the EASA (European Union Aviation Safety Agency) and by the FAA (Federal Aviation Administration) for U.S. registered aircraft in accordance with the provisions of 14 CFR Section 21.29.

This Airworthiness Limitation section is divided into six parts:

- Part 1: Systems Life – Limited Parts
- Part 2: Engine Life – Limited Parts and Mandatory Inspections
- Part 3: Landing Gear Life – Limited Parts
- Part 4: Structural Limitation Items
- Part 5: Fuel Airworthiness Limitations

– Part 6: Propeller Life Limited Parts

4. GENERAL RULES THAT APPLY TO ALL SAAB 2000 MAINTENANCE PROGRAMS

- A. The operator's manuals shall contain the details and responsibilities for accomplishing the maintenance required by this document. The completion of task requirements is to be in accordance with appropriate technical manuals issued for SAAB 2000 aircraft.
- B. Whenever any maintenance tasks are carried out, the structure and systems installation in the affected area are to be checked for accidental damage as the final item before leaving the area.
- C. The overall reliability of the SAAB 2000 shall be monitored by each operator's system for continuous analysis and surveillance as required by National regulations. The manufacturer will establish a reliability monitoring program to which operators using this document as a basis for their maintenance program shall contribute the necessary data.
- D. Inspection criteria's can be obtained from the Policy and Procedure Handbook, PPH 340/2000MTS036742 and/or the MRBR (Maintenance Review Board Report).
- E. Each operator should be cognizant of the numerous inspection techniques, such as "X-ray", "sonic", "eddy current", "radio isotope", etc., which are available (Ref. Nondestructive Testing Manual, NDT). The use of such techniques can be developed to provide a valuable alternative to the prescribed visual inspection specified in the SAAB 2000 maintenance program. Any substitution of inspection technique mentioned above must have appropriate regulatory authority approval.
- F. Tasks which are approved by other regulatory authorities e.g. the task for a flight crew check/test list, may also be considered to be within the requirements of the scheduled maintenance program.

NOTE: US OPERATORS ONLY.

When operators take credit for tasks described in this manual which are accomplished in the flight deck by the flight crew as part of a local regulatory authority approved flight deck normal check list, those tasks must be reviewed and approved by the local regulatory authority to assure accountability.

- G. All task intervals in flight hours, cycles, or calendar basis may be converted and listed in the operator's program to reflect the appropriate frequency as utilized under the operator's maintenance program. Such conversions shall not result in exceeding the figures specified in this document.
- H. Where reference is made to national regulations the most stringent applies.
- I. Within this Report the terms "check" and "inspection" are not intended to imply a level of skill required to accomplish a task.
- J. Design Service Goal (DSG)
The Design Service Goal (DSG) concerns the durability of all aircraft systems including the structure and is an estimation of the life of the aircraft, after which it may not be physically or economically feasible to repair or overhaul the different aircraft systems and its components, to maintain the continuing airworthiness. Initially, the SAAB 2000 in Airliner configuration has a Design Service Goal of 75000 FL or 60000 FH, whichever occurs first.
For SAAB 2000 Aircraft in Flight Inspection configuration, Serial No 051 and 054, have a Design Service Goal of 10000 FL or 17400 FH, whichever occurs first.
NOTE: SAAB 2000 Aircraft in Flight Inspection configuration, Serial No 051 and 054, are also affected by reduction factors (see Reduction table in ALM Part 4) for inspection intervals of tasks derived from both MRBR Structural program and ALM Part 4.
- K. A Corrosion Prevention and Control Program (CPCP) have been developed based on EASA AMC 20-20 and the procedures stated in the PPH (Policy and Procedure Handbook) for evaluation and implementation of CPCP requirements into the MRBR. The original ED (Environmental Deterioration) analysis have been evaluated and the existing corrosion program fulfill the requirements.

CPCP is added in the MRBR task description in order to highlight applicable tasks needed to comply with the CPCP requirement.

NOTE: It is the operators responsibility to ensure that corrosion is controlled to LEVEL 1 or better.

NOTE: For Reporting guidelines also see MRB Report.

5. DETAILS OF MAINTENANCE PROGRAM

The maintenance program for the SAAB 2000 is made up of all System, Power Plant, Structural and Zonal maintenance tasks.

The task intervals are given by numerical figures such as flight hours (FH), APU Hours, flight cycles i.e. landings (FL) or calendar time (Weekly=7 days, M=months or Y=years).

Any supporting documents i.e. MPD etc. may not deviate from the ALM requirements.

6. REFERENCE TO SERVICE BULLETIN

Operators are to note that a reference to a Service Bulletin implies to its latest revision.

7. REVISIONS TO THE ALM

Revision/changes to Airworthiness Limitations Manual must be directly approved by the EASA (European Union Aviation Safety Agency) and by the FAA (Federal Aviation Administration) for U.S. registered aircraft in accordance with the provisions of 14 CFR Section 21.29.

The tasks and intervals specified in this manual may not be modified by the operator.

Each operator is required to report all discrepancies or test failures when performing the maintenance requirements specified in this section. The responsibility of this action rests with the operator. The findings shall include reference to the applicable task number.

For supplementary documents see MRBR appendix:

- 1 for ABBRIVATIONS
- 2 for GLOSSARY
- 4 for “STRUCTURAL INSPECTION REPORTING PROCEDURE” concerning structural findings (PART 2)

NOTE: CMR's (MRBR appendix 4) and Airworthiness Limitations (MRBR appendix 5) revision 5 was removed at revision 13 of the MRB Report dated APR 01/15 and transferred to this manual – ALM (Airworthiness Limitation Manual Doc No. 2000LKS031010) initial revision.

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AIRWORTHINESS LIMITATION MANUAL (ALM)**CERTIFICATION MAINTENANCE REQUIREMENTS / AIRWORTHINESS LIMITATIONS**

APPROVAL SHEET	
Changes and revisions to this manual are approved by the EASA (European Union Aviation Safety Agency) and by FAA (Federal Aviation Administration) for U.S. registered aircraft in accordance with the provisions of 14 CFR Section 21.29.	
Revision: 2 Date: Feb 01/21	Approved By: EASA (European Union Aviation Safety Agency) EASA Approval No: FAA (Federal Aviation Administration) FAA Approval: via EASA approval
Revision Description: See Highlights	

CERTIFICATION MAINTENANCE REQUIREMENTS (CMR)

This section specifies CMR's (Certification Maintenance Requirements), arising from the SAAB 2000 certification process, where System Safety Analysis found the inspection/test interval to have a direct influence on the safety objectives (FAR/JAR 25.1309), ref. also Saab Doc. No. 73DSS0106 Rev B.

NOTE 1: The tasks and intervals specified below may not be modified by the operator.

Changes to CMRs must be directly approved by the EASA (European Union Aviation Safety Agency) and by the FAA (Federal Aviation Administration) for U.S. registered aircraft in accordance with the provisions of 14 CFR Section 21.29.

TASK NO.	DESCRIPTION	INTERVAL	AFM
213002	Functional test of cabin pressurization prevention function when door unlocked.	15000 FH	
261101	Operational test of engine fire detection systems. <u>NOTE:</u> No task required at 900 FH if performed as per operators AFM.	900 FH	
261201	Operational test of tailpipe fire detection systems. <u>NOTE:</u> No task required at 900 FH if performed as per operators AFM.	900 FH	
261301	Operational test of APU fire detection systems. <u>NOTE:</u> No task required at 2100 FH if performed as per operators AFM.	2100 FH	
261501	Operational test of aft cargo smoke detection system. <u>NOTE:</u> No task required at 90 FH if performed as per operators AFM.	90 FH	
261502	Functional test of aft cargo smoke detectors.	18000 FH	
262202	Functional test of electrical extinguishing circuit up to but not including cartridge.	4500 FH	
262402	Functional test of electrical extinguishing circuit up to but not including cartridge.	4500 FH	
271105	Functional test of aileron torsion spring.	6000 FH	
271203	Check backlash of LH and RH aileron tab mechanism.	6000 FH	
273201	Operational test of the individual main and stby pitch trim switches.	62 FH	
273401	Functional test of the elevator disconnect function.	6000 FH	

TASK NO.	DESCRIPTION	INTERVAL	AFM
284101	Operational test of low level sensors.	4500 FH	
292001	Operational test of DC motor pump.	100 FH	
323201	Functional test of LDG emergency extension system.	4000 FH	
314302	Operational test of the bus path from the DCUs to the MFDs and from the FADECs to the PED and the SED.	3000 FH	
342201	Operational test of multifunction display reversionary switches (LH/RH ND).	5200 FH	
612001	Operational test of back-up feather.	480 FH	
–	Operational test of stall warning system.	30 FH	AFM
–	Operational check of propeller overspeed.	26 FH	AFM

AIRWORTHINESS LIMITATIONS

The airworthiness limitations are listed in this section and are MANDATORY for each operator of the SAAB 2000. The airworthiness limitations are accepted by EASA (European Union Aviation Safety Agency) and the Federal Aviation Administration (FAA) and specify the maintenance required under FAR 43.16 and 91.403, unless an alternative program has been approved. The airworthiness limitations may be changed, or escalated, only by the certification authorities EASA and FAA per the manufacturers recommended guidelines.

This section specifies mandatory replacement time (life limited items) and structural inspection requirements, arising from SAAB 2000 certification activities (FAR/JAR 25.1529 and 25.571), qualified as airworthiness limitations.

Changes to the Airworthiness Limitation Section must be directly approved by EASA (European Union Aviation Safety Agency) and by the FAA (Federal Aviation Administration) for U.S. registered aircraft in accordance with the provisions of 14 CFR Section 21.29.

The Airworthiness Limitations are divided into six parts:

- Part 1: Systems Life–Limited Parts
- Part 2: Engine Life–Limited Parts and Mandatory Inspections
- Part 3: Landing Gear Life–Limited Parts
- Part 4: Structural Limitation Items
- Part 5: Fuel Airworthiness Limitations
- Part 6: Propeller Life Limited Parts

Part 1: SYSTEMS LIFE-LIMITED PARTS

The tables in this Part 1 contain only the system tasks which qualify for an airworthiness limitation.

TASK NO.	DESCRIPTION	INTERVAL	PART NO.	EFFECT.
262105	Replace extinguisher cartridges and discard removed units.	10 Y Total Life		
262203	Replace extinguisher cartridges and discard removed units.	10 Y Total Life		
262403	Replace extinguisher cartridges and discard removed units.	10 Y Total Life		
291009	Replace the hydraulic bootstrap fuses and discard removed units.	22500 FL	6349	004-029
321005	Replace main landing gear life-limited parts. (ALM Part 3)			
322005	Replace nose landing gear life-limited parts. (ALM Part 3)			
323104	Replace the landing gear control valve.	62850 FL	7339-2	
323105	Replace the landing gear control unit.	30900 FL	D701-03-001	
323402	Replace separation bolts. <u>NOTE:</u> Interval from date of manufacture.	10 Y		
324202	Replace the parking brake valve.	2500 FH	71304-1	004-019
351105	Replace the oxygen cylinder and discard removed unit.	15 Y or National regulations	89798050	Vendor AVOX/ SCOTT
352005	Replace the passenger chemical oxygen generators and discard removed units.	12 Y or National regulations		Vendor AVOX/ SCOTT
353002	Overhaul of regulator assembly.	5 Y or National regulations		Vendor AVOX/ SCOTT
354001	Replace the Protective Breathing Equipment (PBE) and discard removed unit.	Vendor Rec. or Nat. Reg.		

TASK NO.	DESCRIPTION	INTERVAL	PART NO.	EFFECT.
531022	Replace all bolts at windshields and side windows.	15000 FL		

PART 2: ENGINE LIFE-LIMITED PARTS AND MANDATORY INSPECTIONS

For the engine life-limited parts, refer to the latest revision of the Rolls-Royce Engine Maintenance Manual CSP 31005.

PART 3: LANDING GEAR LIFE-LIMITED PARTS

Following Landing Gear assemblies have Safe Life of 75000 FL:

<u>NLG Shock strut</u>	<u>NLG dragbrace</u>	<u>NLG retract actuator</u>	<u>NLG downlock actuator</u>
AIR 83594 (with nose wheel steering assy)	AIR 84358	AIR 86484	AIR 86490
AIR 83592 (without nose wheel steering assy)	AIR 84366	AIR 86498	
AIR 83630 (with nose wheel steering assy)			
AIR 83628 (without nose wheel steering assy)			

Following Landing Gear assemblies have Safe Life of 75000 FL:

<u>MLG shock strut</u>	<u>MLG dragbrace</u>	<u>MLG retract actuator</u>	<u>MLG downlock actuator</u>
AIR 83078	AIR 84356	AIR 86482	AIR 86492
AIR 83084	AIR 84357		
	AIR 84368		
	AIR 84369		
	AIR 84372		
	AIR 84373		
	AIR 84374		
	AIR 84375		

Components with exception of the current safe life are listed in the following tables.

NOSE LANDING GEAR:

* Denotes component effectivity

NOSE LANDING GEAR SHOCK STRUT & STEERING ASSY AIR 83594													
Component	Part number	Mod Standard											Fatigue life
		/3	/4	/5	/6	/7	/8	/9	/10	/11	/12	/13	
Retract actuator Pin	AIR123572	*	*	*	*	*	*	*	*	*	*	*	69000 FL

NOSE LANDING GEAR SHOCK STRUT & STEERING ASSY AIR 83630													
Component	Part number	Mod Standard											Fatigue life
		/3	/4	/5	/6	/7	/8	/9	/10	/11	/12		
Retract actuator Pin	AIR123572	*	*	*	*	*	*	*	*	*	*		69000 FL

NOSE LANDING GEAR CONT:

NOSE LANDING GEAR DRAG BRACE AIR 84358									
Component	Part number	Mod Standard							Fatigue life
		/1	/2	/3	–	–	–	–	
Upper Link	AIR132290	*	*	*	–	–	–	–	44641 FL
Retract actuator Pin	AIR123572	*	*	*	–	–	–	–	69000 FL

NOSE LANDING GEAR DRAG BRACE AIR 84366									
Component	Part number	Mod Standard							Fatigue life
		/1	/2	–	–	–	–	–	
Upper Link	AIR134666	*	*	–	–	–	–	–	44641 FL
Retract actuator Pin	AIR123572	*	*	–	–	–	–	–	69000 FL

NOSE LANDING GEAR DOWNLOCK ACTUATOR AIR 86490									
Component	Part number	Mod Standard							Fatigue life
		/1	–	–	–	–	–	–	
Body	AIR132812	*	–	–	–	–	–	–	36097 FL

NOSE LANDING GEAR SHOCK STRUT WITHOUT STEERING ASSY AIR 83592										
Component	Part number	Mod Standard								Fatigue life
		/1	/2	/3	/4	/5	/6	/7	/8	
Retract actuator Pin	AIR123572	*	*	*	*	*	*	*	*	69000 FL

NOSE LANDING GEAR SHOCK STRUT WITHOUT STEERING ASSY AIR 83628									
Component	Part number	Mod Standard							Fatigue life
		/1	/2	/3	/4	/5	/6	/7	
Retract actuator Pin	AIR123572	*	*	*	*	*	*	*	69000 FL

MAIN LANDING GEAR:

* Denotes component effectivity

NOTE 1: These parts are not Primary Identifiable Parts (PIP) and consequently not equipped with unique serial numbers and must therefore be replaced at each overhaul in accordance with MRBR Task 321001 with interval 12000 FL or 10 Years whichever occurs first. Real fatigue life as stated in the table for non-PIP parts could however be used if evidence of tracking for each individual part is verified.

MAIN LANDING GEAR CONT:

MAIN LANDING GEAR SHOCK STRUT AIR 83078														
Component	Part number	Mod Standard											Fatigue life	Remarks
		/1	/2	/4	/5	/6	/7	/8	/9	/10	/11	/12		
Piston	AIR 132038	*	-	-	-	-	-	-	-	-	-	-	1010 FL	
Piston	AIR 135062	-	*	-	-	-	-	-	-	-	-	-	1010 FL	
Piston	AIR 135276	-	-	*	*	-	-	-	-	-	-	-	6000 FL	
Piston	AIR 135938	-	-	-	-	*	*	*	*	*	*	*	22452 FL	
Piston	AIR 135990	-	-	-	-	*	*	*	*	*	*	*	22452 FL	
Axle	AIR 132040	*	*	*	*	*	*	*	*	*	*	*	53825 FL	
Cylinder	AIR 132042	*	*	*	*	*	*	*	*	*	*	*	37858 FL	
Shear Bolt	NAS1304-60DH	*	*	*	*	*	*	*	*	*	*	*	12000 FL	
Trunnion Pin	AIR 132900	*	*	*	*	*	*	*	-	-	-	-	8272 FL	
Trunnion Pin	AIR 135954	-	-	-	-	-	-	-	*	*	*	*	48800 FL	
Retract Bracket	AIR132924	*	*	*	*	*	*	*	*	*	*	*	35283 FL	
Bolt	NAS1308-17D	*	*	*	*	*	*	*	*	*	*	*	39600 FL	Note 1
Bolt	NAS6608-17D	*	*	*	*	*	*	*	*	*	*	*	39600 FL	Note 1
Bolt	AIR 132922	*	*	*	*	*	*	*	*	*	*	*	19376 FL	
Dowel	AIR 132888	*	*	-	-	-	-	-	-	-	-	-	12000 FL	
Dowel	AIR 135572	-	-	*	*	*	*	*	*	*	*	*	12000 FL	

MAIN LANDING GEAR SHOCK STRUT AIR 83084													
Component	Part number	Mod Standard										Fatigue life	Remarks
		/1	/2	/3	/4	/5	/6	/7	/8	/9	/10		
Piston	AIR 134596	*	-	-	-	-	-	-	-	-	-	1010 FL	
Piston	AIR 135276	-	*	*	-	-	-	-	-	-	-	6000 FL	

MAIN LANDING GEAR CONT:

Piston	AIR 135938	-	-	-	*	*	*	*	*	*	*	22452 FL	
Piston	AIR 135990	-	-	-	*	*	*	*	*	*	*	22452 FL	
Trunnion Pin	AIR 134608	*	*	*	*	*	*	-	-	-	-	8272 FL	
Trunnion Pin	AIR 135954	-	-	-	-	-	-	*	*	*	*	48800 FL	
Bolt	AIR 132922	*	*	*	*	*	*	*	*	*	*	19376 FL	
Bolt	NAS1308-17D	*	*	*	*	*	*	*	*	*	*	39600 FL	Note 1
Bolt	NAS6608-17D	*	*	*	*	*	*	*	*	*	*	39600 FL	Note 1
Dowel	AIR 132888	*	*	*	-	-	-	-	-	-	-	12000 FL	
Dowel	AIR 135572	-	-	-	*	*	*	*	*	*	*	12000 FL	
Shear Bolt	NAS1304-60DH	*	*	*	*	*	*	*	*	*	*	12000 FL	
Cylinder	AIR 134600	*	*	*	*	*	*	*	*	*	*	37858 FL	
Axle	AIR 132040	*	*	*	*	*	*	*	*	*	*	53825 FL	
Retract Bracket	AIR 132924	*	*	*	*	*	*	*	*	*	*	35283 FL	

MAIN LANDING GEAR DRAG BRACE AIR 84356 & 84357

Component	Part number	Mod Standard							Fatigue life	Remarks
		/1	/2	/3	/4	/5	/6	-		
Upper Link	AIR 132426	*	-	-	-	-	-	-	1300 FL	
Upper Link	AIR 132427	*	-	-	-	-	-	-	1300 FL	
Upper Link	AIR 135066	-	*	-	-	-	-	-	1300 FL	
Upper Link	AIR 135067	-	*	-	-	-	-	-	1300 FL	
Upper Link	AIR 134610	-	-	*	-	-	-	-	1300 FL	
Upper Link	AIR 134611	-	-	*	-	-	-	-	1300 FL	
Upper Link	AIR 135612	-	-	-	*	*	*	-	21056 FL	
Upper Link	AIR 135613	-	-	-	*	*	*	-	21056 FL	
Retract Act. Pin	AIR 132458	*	*	*	*	*	*	-	30000 FL	

MAIN LANDING GEAR CONT:

Bearing Housing	AIR 133346	*	*	*	*	*	*	-	44829 FL	Note 1
Lock Lever	AIR 134250	*	*	*	*	*	*	-	72000 FL	

MAIN LANDING GEAR DRAG BRACE AIR 84368 & 84369

Component	Part number	Mod Standard							Fatigue life	Remarks
		/1	/2	/3	/4	-	-	-		
Upper Link	AIR 135066	*	-	-	-	-	-	-	1300 FL	
Upper Link	AIR 135067	*	-	-	-	-	-	-	1300 FL	
Upper Link	AIR 135612	-	*	*	*	-	-	-	21056 FL	
Upper Link	AIR 135613	-	*	*	*	-	-	-	21056 FL	
Retract Act. Pin	AIR 132458	*	*	*	*	-	-	-	30000 FL	
Bearing Housing	AIR 133346	*	*	*	*	-	-	-	44829 FL	Note 1
Lock Lever	AIR 134250	*	*	*	*	-	-	-	72000 FL	

MAIN LANDING GEAR DRAG BRACE AIR 84372 & 84373

Component	Part number	Mod Standard							Fatigue life	Remarks
		/1	/2	/3	-	-	-	-		
Upper Link	AIR 135612	*	*	-	-	-	-	-	21056 FL	
Upper Link	AIR 135613	*	*	-	-	-	-	-	21056 FL	
Upper Link	AIR 136562	-	-	*	-	-	-	-	36000 FL	
Upper Link	AIR 136563	-	-	*	-	-	-	-	36000 FL	
Retract Act. Pin	AIR 132458	*	*	*	-	-	-	-	30000 FL	
Bearing Housing	AIR 133346	*	*	*	-	-	-	-	44829 FL	Note 1
Lock Lever	AIR 134250	*	*	*	-	-	-	-	72000 FL	

MAIN LANDING GEAR DRAG BRACE AIR 84374 & 84375

Component	Part number	Mod Standard							Fatigue life	Remarks
		/1	/2	/3	/4	-	-	-		
Upper Link	AIR 135612	*	*	*	-	-	-	-	21056 FL	
Upper Link	AIR 135613	*	*	*	-	-	-	-	21056 FL	
Upper Link	AIR 136562	-	-	-	*	-	-	-	36000 FL	
Upper Link	AIR 136563	-	-	-	*	-	-	-	36000 FL	
Retract Act. Pin	AIR 132458	*	*	*	*	-	-	-	30000 FL	

MAIN LANDING GEAR CONT:

Bearing Housing	AIR 133346	*	*	*	*	-	-	-	44829 FL	Note 1
Lock Lever	AIR 134250	*	*	*	*	-	-	-	72000 FL	

MAIN LANDING RETRACT ACTUATOR AIR 86482

Component	Part number	Mod Standard							Fatigue life	Remarks
		/1	/2	/3	/4	/5	-	-		
Ramrod	AIR 133072	*	*	*	*	-	-	-	9000 FL	
Eye End	AIR 133080	*	*	*	*	-	-	-	59146 FL	
Eye End	AIR 139892	-	-	-	-	*	-	-	59146 FL	

MAIN LANDING GEAR DOWNLOCK ACTUATOR AIR 86492

Component	Part number	Mod Standard							Fatigue life	Remarks
		/1	-	-	-	-	-	-		
Body	AIR132812	*	-	-	-	-	-	-	36097 FL	

Part 4: STRUCTURAL LIMITATION ITEMS**Structure Life Limited Parts:**

Following table states the current safe life of structure limited parts.

Component	Partnumber	Fatigue life
Trunnion fitting	7357451-009/-010/-013/-014	12000 FL
Trunnion fitting	7357451-019/-020	63800 FL
Connecting links	7357453-003	12000 FL
Connecting links	7357453-005/-009	75000 FL
Dragbrace fitting	7357452-029 /-030/-047/-048	75000 FL

Reduction Factors for Structure Limited Tasks aircraft S/N 051 and 054:

SAAB 2000 Aircraft in Flight Inspection configuration, Serial No 051 and 054, must use the service interval reduction factors below to convert airlines service inspection intervals derived from both MRBR Structural program and ALM Part 4 to calculate the reduced service inspection intervals.

Structure area	Reduction factor on FL basis	Reduction factor on FH basis
Wing	<u>2.7</u>	<u>1.4</u>
Nacelle	<u>2.7</u>	<u>1.4</u>
Horizontal stabilizer	<u>2.7</u>	<u>1.4</u>
Vertical stabilizer	<u>2.3</u>	<u>1.2</u>
Fwd Fuselage	<u>1.0</u>	<u>1.0</u>
Cabin	<u>2.7</u>	<u>1.4</u>
Rear Fuselage	<u>2.7</u>	<u>1.4</u>
Landing gear	<u>1.0</u>	<u>1.0</u>
Flap	<u>2.3</u>	<u>1.2</u>
Aileron	<u>7.5</u>	<u>3.8</u>
Rudder	<u>2.6</u>	<u>1.3</u>
Elevator	<u>4.2</u>	<u>2.1</u>

Summary of service interval reduction factors to convert airlines service inspection intervals to service inspection intervals for Flight Inspection configuration, Serial No 051 and 054.

Structure Limited Tasks:

The tables below contain only the structural tasks which qualify for an airworthiness limitation.

The qualification/selection is based on consequence of failure and damage detection considerations.

TASK NO.	DESCRIPTION	INTERVAL	INSPECTION METHOD	EFFECTIVITY
532104	Special detailed inspection for cracks: – Of upper sill, inner flange splice, STA.262 – At main entrance door, adjacent area.	20000 FL/ 6000 FL	EDDY CURRENT	
532105	Special detailed inspection for cracks: – Of inner flange – At main entrance door, adjacent area – Between WL 70.5 – 74.0.	20000 FL/ 6000 FL	EDDY CURRENT	
532508	Special detailed inspection for cracks: – Of bushes at the wing attachment fitting, STA.562 and STA.622 – In outer channel.	32000 FL/ 24000 FL	ULTRASONIC	
532513	Special detailed inspection for cracks: – Of bushes at the X-link beam fittings, STA.541 and STA.642.	32000 FL/ 24000 FL	ULTRASONIC	
541011	Special detailed inspection for cracks: – Of EMS fwd frame.	20000 FL/ 3000 FL	EDDY CURRENT	004–022
541012	Special detailed inspection for cracks (EMS disassembled) – Of the EMS fwd frame. (Support engine – only disassemble one attachment point at any time to complete the inspection)	20000 FL/ 12000 FL	EDDY CURRENT	023–UP
541013	Special detailed inspection for cracks, (engine removed): – Of hidden parts – At EMS fwd frame.	32000 FL/ 24000 FL	EDDY CURRENT	
541014	Special detailed inspection for cracks (engine removed and EMS disassembled): – Of LH fitting and attachment hardware – At EMS fwd frame.	32000 FL/ 24000 FL	EDDY CURRENT AND PENETRANT	
541015	Special detailed inspection for cracks (engine removed and EMS disassembled): – Of RH fitting and attachment hardware – At EMS fwd frame.	32000 FL/ 24000 FL	EDDY CURRENT AND PENETRANT	
541016	Special detailed inspection for cracks (engine removed and EMS disassembled): – Of center fitting and attachment hardware – At EMS fwd frame.	32000 FL/ 24000 FL	EDDY CURRENT AND PENETRANT	
541017	Special detailed inspection for cracks (EMS removed): – Of EMS aft beam.	32000 FL/ 24000 FL	EDDY CURRENT	

TASK NO.	DESCRIPTION	INTERVAL	INSPECTION METHOD	EFFECTIVITY
541018	Special detailed inspection for cracks (engine and EMS removed): – Of EMS LH, upper fitting and attachment hardware – At aft beam.	32000 FL/ 24000 FL	EDDY CURRENT AND PENETRANT	A/C 050 UP
541019	Special detailed inspection for cracks (engine and EMS removed): – Of EMS RH, upper fitting and attachment hardware – At aft beam.	32000 FL/ 24000 FL	EDDY CURRENT AND PENETRANT	
542003	Special detailed inspection for cracks: – Of nacelle upper fitting at attachment to upper longeron – At NS. 199, inbd/outbd (LH/RH).	20000 FL/ 12000 FL	EDDY CURRENT	
542006	Special detailed inspection for cracks: – Of nacelle fwd frame, at attachment to nacelle lower fittings – At NS.199, inbd/outbd (LH/RH).	20000 FL/ 12000 FL	EDDY CURRENT	
542011	Special detailed inspection for cracks: – Of nacelle attachment angles to wing box front spar, inbd/outbd (LH/RH).	32000 FL/ 6000 FL	EDDY CURRENT	A/C 004–049
542014	Special detailed Inspection for cracks – Of nacelle upper fitting at attachment to upper longeron – At NS.199, inbd/outbd (LH/RH).	32000 FL/ 12000 FL	EDDY CURRENT	
551011	Special detailed inspection for cracks: – Of web cap-angles – At front and rear spar, horizontal stabiliser – In the area of empennage attachment frames (inside of the fuselage).	20000 FL/ 12000 FL	X-RAY	
552008	Special detailed inspection for cracks: – Of upper and lower flange apertures – At the mid hinge (Y1595b–4287) area and – At the inner (Y1595b–1380) area and – At the outer actuator (Y1595b–1620) area – On front spar, elevator.	32000 FL/ 24000 FL	EDDY CURRENT	
552012	Special detailed inspection for cracks: – Of actuator hinge bolts, elevator.	20000 FL/ 12000 FL	MAGNETIC PARTICLE	
553008	Special detailed inspection for cracks: – Of rear spar attachment (STA.1053), vertical stabiliser.	20000 FL/ 12000 FL	X-RAY	

TASK NO.	DESCRIPTION	INTERVAL	INSPECTION METHOD	EFFECTIVITY
553009	Special detailed inspection for cracks: – Of front spar attachment (STA.1027), vertical stabiliser.	20000 FL/ 12000 FL	X-RAY	A/C 004–049
572013	Special detailed inspection for cracks: – Of fwd, center and rear splice plates at BL0.0 (LH/RH) – Inside center wing.	20000 FL/ 12000 FL	X-RAY	
572015	Special detailed inspection for cracks: – Of splice plate at BL0.0 – At center wing, rear spar.	20000 FL/ 12000 FL	X-RAY	
572018	Special detailed inspection for cracks: – Of wing rear spar, lower web cap-angle – At WS42 (wing/fuselage interface area) and – At WS150 (flap fitting No. 2 area LH/RH) and – At WS343 (aileron fitting No. 1 area LH/RH).	32000 FL/ 24000 FL	X-RAY OR RADIOGRAPHIC	
572019	Special detailed inspection for cracks: – Of wing front spar, lower web cap-angle – Between nacelle outbd skin and WS188.5 (LH/RH).	20000 FL/ 12000 FL	EDDY CURRENT	
572023	Special detailed inspection for cracks: – Of wing bottom skin – At attachment to rear spar – Inbd/outbd WS163.2 (between BL148 and BL175 LH/RH) (MLG well).	20000 FL/ 6000 FL	EDDY CURRENT	
576007	Special detailed inspection for cracks: – Of spar fwd face at WS.441 and WS.343 – At aileron front spar.	20000 FL/ 12000 FL	EDDY CURRENT	

NOTE 1 After performing the tasks specified in the structural airworthiness limitations items of this part, all operators are required to report all discrepancies found and/or all instances of inspection/test failure. The responsibility for this action rests with the operator. All findings shall include reference to the applicable task number.

Mail findings to: Saab AB
Support and Services
Aircraft Services
S-581 88 Linköping, Sweden
E-mail: Saab2000.techsupport@saabgroup.com

Part 5: FUEL AIRWORTHINESS LIMITATIONS**1. Maintenance and Inspections Instructions**

Step 1: Specifies maintenance and inspection instructions to ensure safety of fuel tank system. These instructions are mandatory actions derived from fuel tank safety review of the airplane fuel tank system.

NOTE 1: The tasks and intervals specified below may not be modified by the operator.

TASK NO	Description	MAX INTERVAL	EFF
282001	Detailed inspection of the fuel access doors and the contact surfaces of the fuel tank opening edges for sign for corrosion.	4 Years	Pre-SB 2000-57-033
		5 Years	Post-SB 2000-57-033
282002	Detailed inspection of 28 VDC wiring installed in fuel tanks. (The interval is from after incorporation of SB 2000-28-013)	20000 FH	ALL

2. Critical Design Configuration Control Limitations (CDCCL).

CDCCLs are a means of identifying certain design configuration features intended to preclude a fuel tank ignition source for the operational life of the airplane. CDCCLs are mandatory and cannot be changed or deleted without the approval of the airworthiness authority that is responsible for the airplane model Type Certificate, or applicable regulatory agency. A critical fuel tank ignition source prevention feature may exist in the fuel system and its related installation or in systems that, if a failure condition were to develop, could interact with the fuel system in such a way that an unsafe condition would develop without this limitation. Strict adherence to configuration, methods, techniques, and practices as prescribed is required to ensure the CDCCL is complied with. Any use of parts, methods, techniques or practices not contained in the applicable CDCCL must be approved by the airworthiness authority that is responsible for the airplane model Type Certificate, or applicable regulatory agency.

CDCCL	DESCRIPTION	SERVICE BULLETIN REFERENCE
1	28 VDC Wiring and extra protection/insulation on wiring installed in fuel tanks. To maintain the correct installation and configuration see following references: AMM 28-21-15-000/400-801, Refuel shutoff valve AMM 28-21-15-000/400-802, Refuel shutoff valve in the center tank AMM 28-22-10-000/400-801, Fuel pump WM 20-20-35, Harness routing and bonding	SB 2000-28-013 – Replacement of A-class wires inside tank and installation of protective shrink tube.

CDCCL	DESCRIPTION	SERVICE BULLETIN REFERENCE
3	Wire separation (physical barrier) of FQIS Signal Conditioner 28 VDC supply, including marking of the wiring. To maintain the correct installation and configuration see following references: AMM 28-41-20-000/400-801, Signal conditioner unit WM 20-20-35, Harness routing and bonding.	SB 2000-28-014 – Wire separation of Fuel Quantity Indication System (FQIS) signal conditioner 28 VDC supply – fuselage.

EXCEPTIONAL SHORT-TERM EXTENSIONS

Since Fuel ALI Maintenance/Inspection intervals are generally not determined from calculations in which failure rate data is known with a high level of confidence, an exceptional short-term extension for a specific Fuel ALI interval may be made on one aircraft for a limited period of time without jeopardising safety.

The term 'exceptional short-term extension' is defined as an increase in a Fuel ALI interval that may be needed to cover an uncontrollable or unexpected situation. Repeated use of such extensions, either on the same aircraft or on similar aircraft in the operator's fleet, should not be used as a substitute for good management practices.

Unless noted adjacent to the task, for all Fuel ALIs identified in this document, it has been accepted by the Primary Certification Office (EASA) that short-term extensions up to the following maximum values may be granted without consultation with that office. Requests for extensions in excess of these values must be submitted with full justification to the Primary Certification Office (EASA) such that approval, if granted, can be given prior to their use.

- Fuel ALIs controlled by Flight Hours (FH)

Extensions up to 10 % or 500FH (whichever is the lesser) may exceptionally be granted on Fuel ALI intervals quoted in terms of flight hours.

- Fuel ALIs controlled by Flight Cycles (FL)

Extensions up to 5% or 250FL (whichever is the lesser) may exceptionally be granted on Fuel ALI intervals quoted in terms of flight cycles or landing.

- Fuel ALIs controlled by Calendar Time (MOS or Y)

Where the repeat interval is 12 months or less, extensions up to 10 % or 1 month (whichever is the lesser) may exceptionally be granted on Fuel ALI intervals quoted in terms of months.

Where the repeat interval is greater than 12 months but less than 3 years, extensions up to 2 months may exceptionally be granted.

Where the repeat interval is 3 years or greater, extensions up to 3 months may exceptionally be granted.

It is the operator's responsibility to identify appropriate procedures with his local regulatory authority for the control and development of his maintenance program.

NOTE 1: The operator should keep a record of short term extensions given for Fuel Airworthiness Limitations).

This paragraph in the Fuel Airworthiness Limitation document is written to confirm to the local regulatory authority that exceptional short-term extensions of Fuel ALI intervals are permissible. Approval of such extensions rests with the local authority in the same way as it does for any other scheduled maintenance task interval extension.

PART 6: PROPELLER LIFE LIMITED PARTS

1. For propeller life limited part refer to the latest revision of the Dowty Propeller Maintenance Manual (PMM) 1089.